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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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EXAMINER	
KRUTER, J	
ART UNIT	PAPER NUMBER
336	5

DATE MAILED:

02/11/88

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449                  | 4. <input type="checkbox"/> Notice of informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474      | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 9-22, 27-34, 37-56 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☒ Claims 9-20, 27-33, 48-56 are allowed.
4. ☒ Claims 21, 22, 34, 37-43, 45-47 are rejected.
5. ☒ Claim 44 are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☒ The corrected or substitute drawings have been received on 12/7/87. These drawings are ☒ acceptable; ☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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The numbering of claims is not in accordance with 37 CFR 1.126. The original numbering of the claims must be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When claims are added, except when presented in accordance with 37 CFR §1.121(b), they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 41-57 have been renumbered as claims 40-56, respectively.

Applicant should appropriately change the dependency for all the claims in this group to reflect the new claim numbering.

Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Since claim 4 has been renumbered to be claim 40 it appears to be dependent on itself. Please correct. Further in claim 40, there is no antecedent for "said check valve".

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not

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preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 21 and 22 are rejected under 35 U.S.C. 103 as being unpatentable over Banko ('342).

Banko in Figure 2 shows a fluid control apparatus for treating the eye with an aspiration conduit and an irrigation fluid conduit. The eye is considered to be an "elastic chamber". We are further shown a controllable pump means that consists of a compressible conduit within the housing of the peristaltic pump together with rotor 126. The pressure sensing transducer means 60 communicates with the aspiration conduit means and further electrically communicates with the control circuit.

When the pump is not operating, the control signal is considered to be directly proportional to the vacuum in the aspiration conduit means. It should be noted as the speed of the rotor increases or decreases, the output voltage control signal is in proportion to the rate of fluid flow therethrough. Further, it is quite conventional to interrelate velocity (per Bernoulli Theorem) with pressure (see column 3, lines 44-49).

Since the transducer 60 is in the aspiration line, it would obviously sense the presence of rise in vacuum in this line.

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Claims 34, 37, 39, 40, 41 are rejected under 35 U.S.C. 103 as being unpatentable over Kelman in view of Douvas.

Kelman shows everything that applicant claims except that instead of utilizing a liquid equalizing pressure means in the irrigation line it uses atmospheric pressure and the hydraulic pressure in the aspiration line.

In Douvas we are shown the use of liquid such as 36 which is tied into the aspiration line 26 which will inherently equalize the pressure in the aspiration line when the blockage is overcome. Thus it can be seen that Douvas teaches the missing element in Kelman to equalize the pressure in the aspiration conduit.

Therefore it would have been obvious at the time of the invention to incorporate the use of a liquid as in Douvas to balance or equalize in place of air and liquid utilized by Kelman.

In claim 37, the pressure equalizing means that provide communication between the irrigation conduit means and the aspiration conduit means in Kelman reference is the handpiece.

In claims 39 and 40, per column 6, line 48-50 of Douvas, it would have been obvious at the time of the invention to provide a check valve on the irrigation fluid conduit means of Kelman to prevent back flow to

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the irrigation line should the elevation of the irrigation supply bag be lowered in elevation inadvertently.

In claim 41, note the bottles 36, 46, and 48 of the Douvas. It would have been obvious at the time of the invention to incorporate the use of a bottle such as in Douvas in Kelman as a source of irrigation.

Claims 42, 43, 45, 46, 47 are rejected under 35 U.S.C. 103 as being unpatentable over Kelman in view of Douvas as applied to claim 34 above, and further in view of Banko '342.

Applicant's attention is drawn to column 3 line 28 of Banko '342. It would have been obvious at the time of the invention to utilize a bottle or a <sup>bag</sup> ~~bag~~ as a source of irrigant to flush the eye as in Banko '342 in either Kelman or Douvas.

In claim 45 when the transducer 60 reads a drop in vacuum due to the equalizing effect of the irrigant, the output signal of the comparator 204 will open the switch 140 to shut off the motor but also will stop the evacuation pump 120. It would have been obvious at the time of the invention to incorporate the control circuit of Banko '342 on to Kelman to control the operation of the device.

In claim 46, obviously the switch at 144 is capable to be automatic or manually operated. It being a matter of obvious choice to a person of ordinary skill

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in the art as to which is used in the absence of a showing of criticality or that which cannot be discovered by routine experimentation.

With respect to claim 38 and 47, note valve 65, by operating switch 144 power to the valve 65 and transducer 60 is accomplished and when an occlusion occurs in line 70 the transducer in conjunction with the comparing circuit 200, 210, 204 and 208 will open the valve 65.

New numbered claim 44 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 9-20, 27-33, newly numbered claims 48-56 are allowable over the prior art of record.

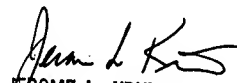
Applicant's arguments with respect to claims have been considered but are deemed to be moot in view of the new grounds of rejection.

J. Kruter/des

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JEROME L. KRUTER  
EXAMINER  
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